



Intelligent Transportation System

Comprehensive Network Solution for
Transportation Infrastructure

Reliable Network Transmission for ITS Infrastructure

Designed for transport network and rolling stock applications with uninterrupted operation and trustable network transmission, PLANET Intelligent Transportation System Solution is compliant with various advanced features, such as 10Gbps SFP, Modbus, ERPS Ring, Cyber Security and ITS certifications EN50155 and E-Mark to meet all the transmission needs, be it Information, Control or Device.

PLANET's internationally-certified devices are sure to meet all your smart transportation requirements.



Comprehensive Network Solution for Sustainability

PLANET 95W 802.3bt Industrial Power over Ethernet, Industrial Modular Ethernet Chassis, LoRaWAN AIoT Energy Management and Renewable Energy Network Solution with eco-design provide complete networking technologies to meet the metropolitan and rural communication network applications for a sustainable future.



Strict Network Security

PLANET IEC 62443-4-1 certified devices, designed for Industrial Network Security Protection and compliant with Cyber Security, Industrial VPN, SPI firewall and IPS, provide secure data transmission and privacy.



Unique Flat-type and Touch LCD Design

PLANET unique Flat-type Ethernet design is suitable for space-saving network installation, like wall enclosure or electric box found in buildings or outdoors. With the LCD Touch Screen, IT staff can immediately trouble-shoot any problems with ease.



ERPS Ring for Network Redundancy



IEEE 1588 Protocol (PTP)



Intelligent PoE Management



5G NR / 4G LTE Cellular Options



IEEE 802.11ax Dual Band Operation



12V DC Power Supply



IEC 62443-4-1 Certified



ISO 27001 Certified



E-Mark Certified



EN50155 Certified



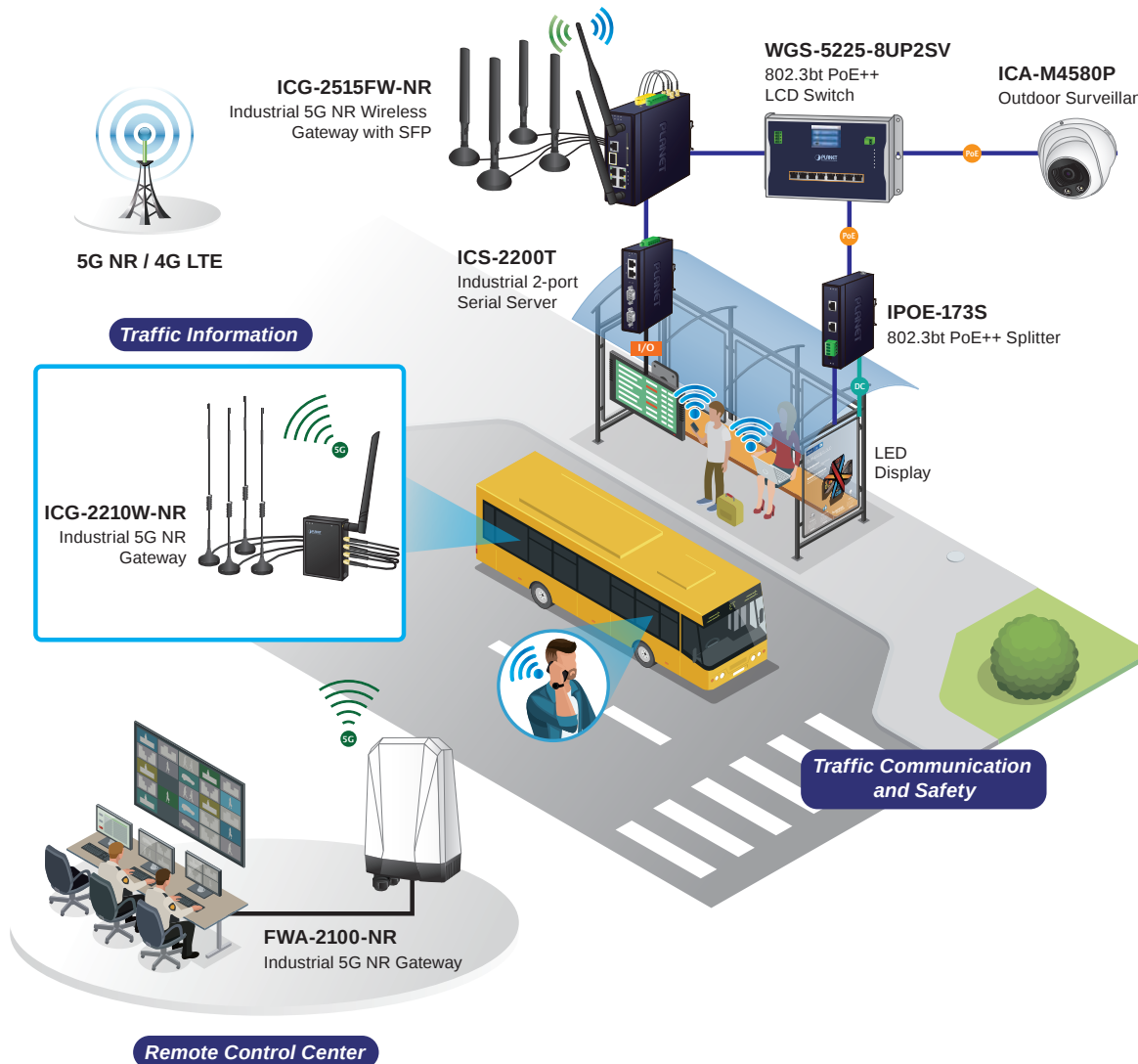
EN50121-4 Certified



EN61000-6-2/-4 Heavy Industrial EMC

Public Transportation

Mobility connectivity brings security, communications and service management



5G NR/ 4G LTE Cellular and Wireless Deployment

ICG-2515FW-NR

Industrial 5G NR Cellular Wireless Gateway with 1-Port 1000X SFP



Industrial Flat-type Gigabit Power over Ethernet

WGS-5225-8UP2SV

Industrial L2+ 8-Port 802.3bt PoE + 2-Port 1G/2.5G SFP Switch with Touch LCD



Safe and Secure High-resolution Surveillance

ICA-M4580P

H.265 5 Mega-pixel Smart IR Dome IP Camera with Remote Focus and Zoom



Data and Power Transmission for Non-PoE Device

IPOE-173S

Industrial Single-Port 10/100/1000Mbps 802.3bt PoE++ Splitter



Railway Station

EMC certified and robust networking for rolling stock application



Industrial Heavy EMC Gigabit PoE++ Switch IGS-6329-8UP2S2X / ICG-6329-8UP2S4X

Industrial L3 8-Port 802.3bt PoE + 2/4-Port
1G/2.5G SFP + 10G SFP Ethernet Switch



Signaling Equipment Control System ICS-2100T / ICS-2200T / ICS-2400T

Industrial RS232/RS422/RS485 Serial
Device Server



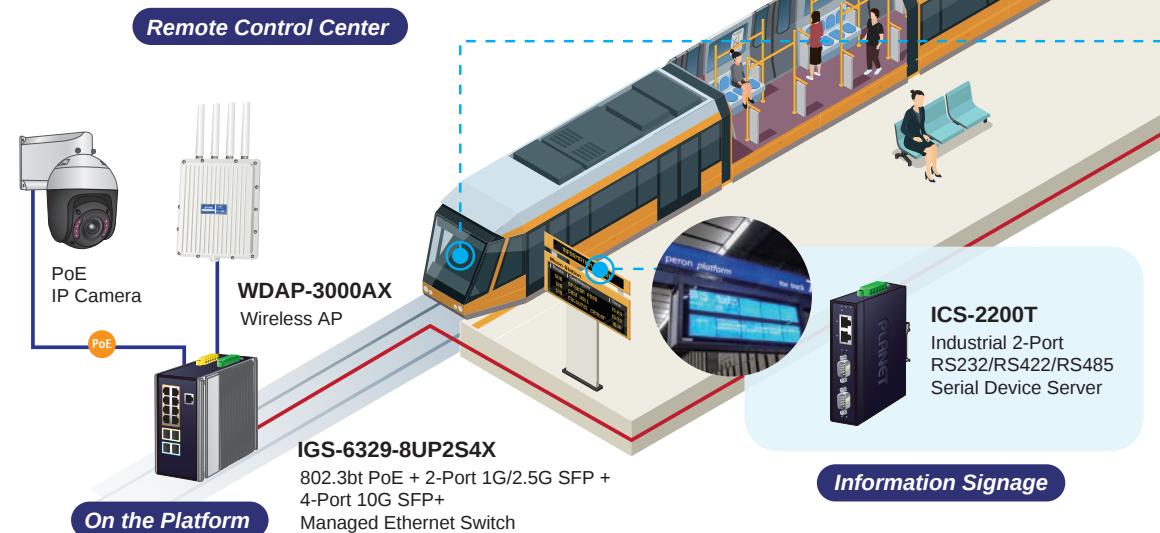
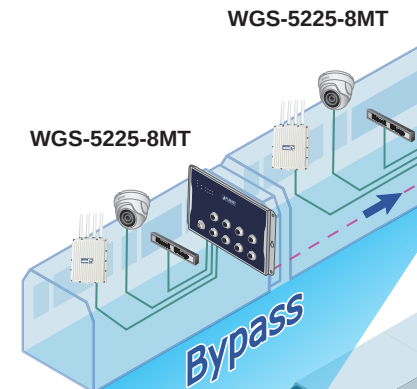
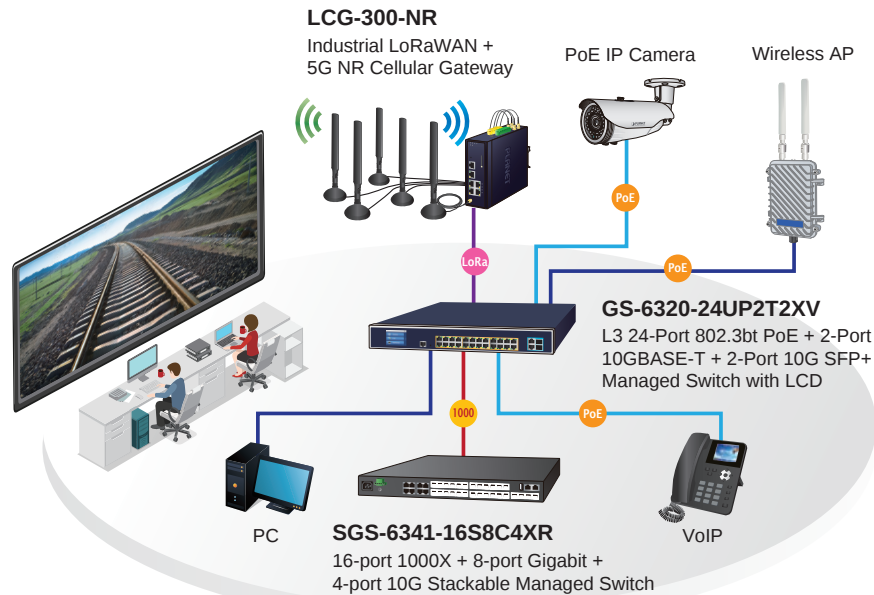
Long-range IoT Environment Monitoring System LCG-300-NR

Industrial LoRaWAN + 5G NR Cellular
Gateway



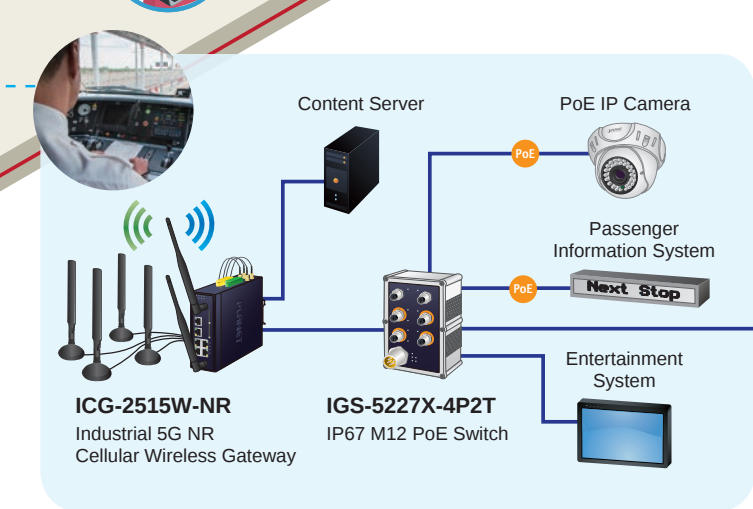
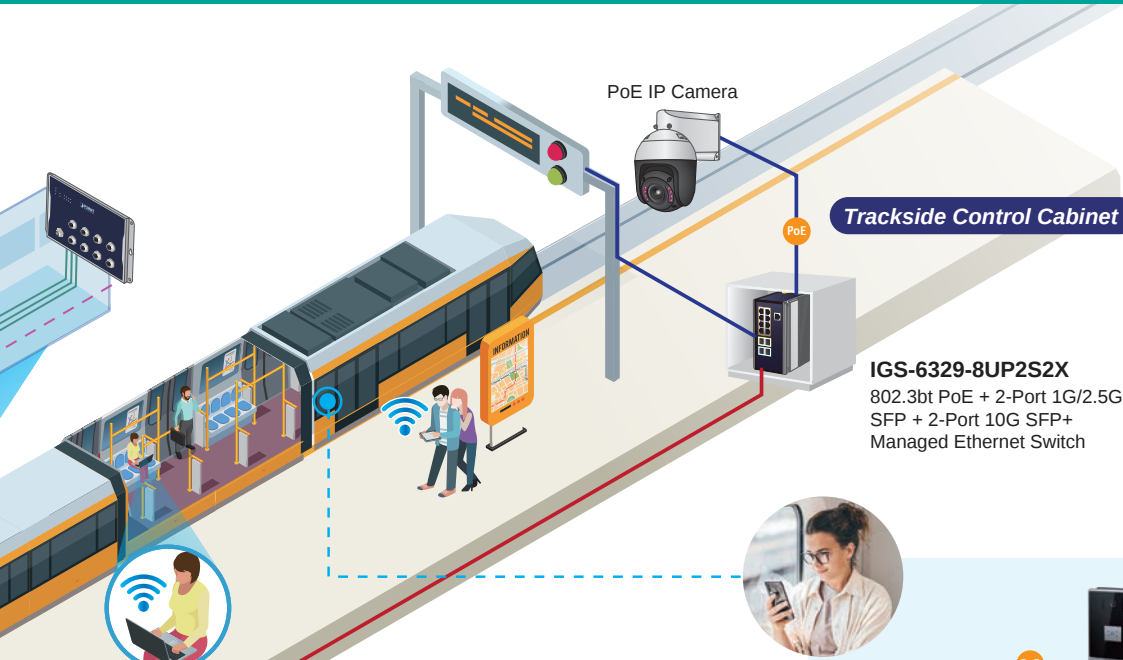
High speed Wi-Fi Coverage Management WDAP-3000AX

Dual Band 802.11ax 3000Mbps Outdoor
Wireless AP

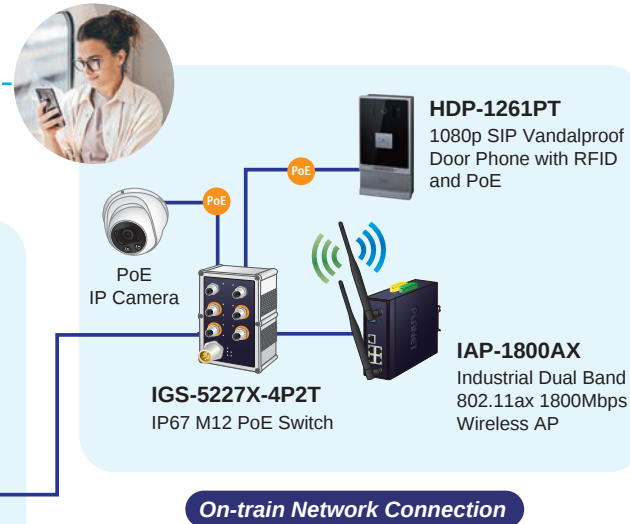


On the Train

Bypass relay and M12 equipment to withstand vibration and shock of rolling stock



Train Operation System



On-train Network Connection



EN50155 Vibration-proof PoE Communication IGS-5227X-4P2T

Industrial IP67 4-Port 802.3at PoE+ 2-Port 10/100/1000T Managed Ethernet Switch



Trustable Data Transmission in Harsh Environment WGS-5225-8MT

Industrial L2+ 8-Port M12 Flat-type Managed Switch



Secure and High-speed Wireless Service IAP-1800AX

Industrial Dual Band 802.11ax 1800Mbps Wireless AP



Emergency and VoIP Communication System HDP-1261PT

1080p SIP Vandalproof Door Phone with RFID and PoE



Highway

E-mark standards, solar power supply and ERPS ring to ensure quality transmission



Renewable Energy PoE Switch BSP-360

Industrial Green Power Gigabit Managed Switch/Router with 4-Port 802.3at PoE+



Outdoor Long Distance Wireless Transmission WBS-900AC-KIT

5GHz 802.11ac 900Mbps TDMA Long-range Wireless CPE Kit



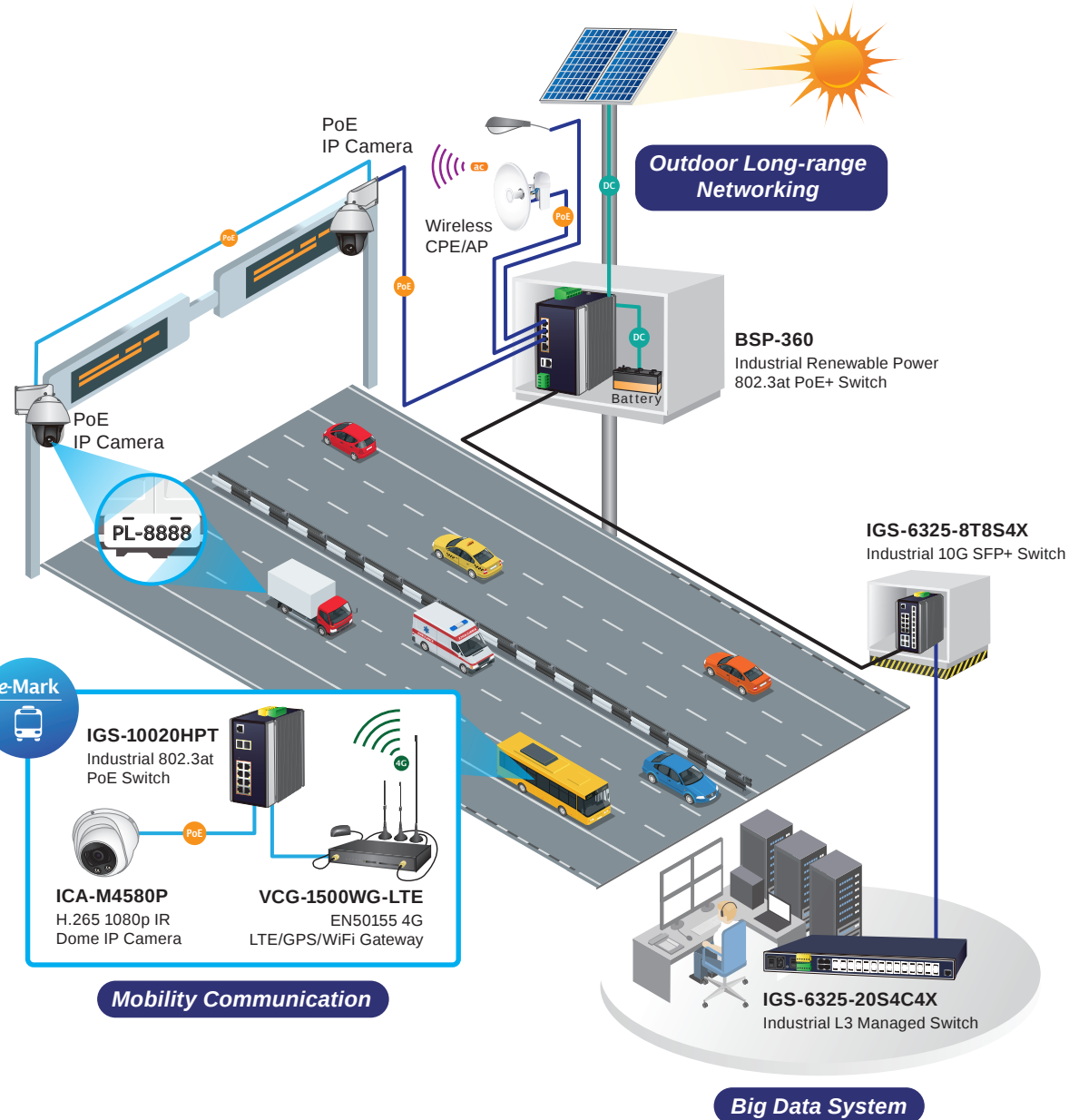
Vehicle Cellular Wi-Fi Gateway VCG-1500WG-LTE

Vehicle 4G LTE Cellular Wireless Gateway with 5-Port 10/100TX



Aggregation 10G Fiber Switch IGS-6325-8T8S4X

Industrial L3 8-Port 10/100/1000T + 8-Port 1G/2.5G SFP + 4-Port 10G SFP+ Switch



EN50155 Ethernet Switches



EN50155 PoE+ Switches

	L2+ Management				Unmanaged	
Model	IGS-604HPT-M12	IGS-604HPT-RJ	IGS-5226-4P2T	IGS-5227X-4P2T	ISW-808PT-M12A	ISW-808PT-M12
Product Image						
IP Rating	IP67	IP67	IP50	IP67	IP50	IP67
LAN Port	2 x M12, A-coded	2 x water-proof RJ45	2 x water-proof RJ45	2 x M12, X-coded	8 x M12, D-coded	8 x M12, D-coded
PoE LAN Port	4 x M12, A-coded	4 x water-proof RJ45	4 x water-proof RJ45	4 x M12, X-coded	8 x M12, D-coded	8 x M12, D-coded
PoE Budget	144 watts	144 watts	144 watts	144 watts	180 watts	180 watts
Power Input	Dual 48-56V DC	Dual 48-56V DC	Dual 48-56V DC	Dual 12-56V DC	Dual 12-56V DC	Dual 12-56V DC
Operating Temp.	-40~75°C	-40~75°C	-40~75°C	-40~75°C	-40~75°C	-40~75°C
Data Recovery	G.8032 ERPS Ring	G.8032 ERPS Ring	G.8032 ERPS Ring	G.8032 ERPS Ring	G.8032 ERPS Ring	G.8032 ERPS Ring

EN50155 Ethernet Switches

	L2+ Management			Unmanaged
Model	IGS-5227-6MT-X	IGS-5227-6T	WGS-5225-8MT	ISW-800T-M12
Product Image				
IP Rating	IP67	IP67	IP40	IP67
LAN Port	6 x M12, X-coded	6 x water-proof RJ45	8 x M12, X-coded	8 x M12, D-coded
PoE LAN Port	-	-	-	-
PoE Budget	-	-	-	-
Power Input	Dual 12-48V DC	Dual 12-48V DC	Dual 9-48V DC	Dual 9-48V DC
Operating Temp.	-40~75°C	-40~75°C	-40~75°C	-40~75°C
Data Recovery	G.8032 ERPS Ring	G.8032 ERPS Ring	G.8032 ERPS Ring	G.8032 ERPS Ring

5G NR / 4G LTE Cellular Gateway

Wireless Gateway									
Model	ICG-2515-NR ICG-2515W-NR	ICG-2515F-NR ICG-2515FW-NR	LCG-300-NR	ICG-2210W-NR	VCG-1500WG-LTE	ICG-2510W-LTE	ICG-2510WG-LTE	FWA-2100-NR	
Product Image									
Hardware	10/100BASE-TX	5 10/100/1000BASE-T	5 10/100/1000BASE-T	5 10/100/1000BASE-T	1 10/100/1000BASE-T	4	5 10/100/1000BASE-T		1 10/100/1000BASE-T
	WAN	1 + (LAN)	1	1	1 10/100/1000BASE-T	1	1	1	-
	Fiber WAN	-	1	-	-	-	-	-	-
	Wi-Fi	● IEEE 802.11ax, 24GHz & 5GHz		-	802.11n, 2.4GHz 802.11ac, 5GHz	802.11n, 2.4GHz	802.11n, 2.4GHz 802.11ac, 5GHz	802.11n, 2.4GHz 802.11ac, 5GHz	802.11n, 2.4GHz
	GPS	GNSS positioning	GNSS positioning	GNSS positioning	●	●	-	●	●
	SIM Card Slot	2	2	1	2 (Micro SIM)	1	2 (Failover, Load balancing and bonding function)		2 (Nano SIM)
	TF Card Interface	-	-	-	-	2	1	1	-
Multi Band Supports	EU Model/ US Model	5G NR: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48/n66/n71/n77/n78/n79 4G LTE: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/ B32/B34/B38/B39/B40/B41/B42/B43/B46/B48/B66/B71			EU Model: Sub-6: n1, n3, n5, n7, n8, n20, n28, n38, n40, n41, n75, n76, n77, n78, n79 LTE FDD: B1, B3, B5, B7, B8, B20, B28, B32 LTE TDD: B38, B40, B41, B42, B43 WCDMA: B1, B5, B8 US Model: Sub-6: n2, n5, n7, n12, n14, n25, n30, n48, n41, n70, n66, n71, n77, n78 LTE FDD: B2, B4, B5, B7, B12, B13, B29, B30, B66, B71 LTE TDD: B41, B46(LAA), B48	EU Model: FDD LTE B1/B3/B5/B7/B8 B20(2100/1800/850/2600/900/800) TDD LTE B38/B40/B41(2600/2300/2500 WCDMA B1/B5/B8(2100/850/900) GSM/EDGE B3/B8 (1800/900) US Model: FDD LTE B2/B4/B12 (1900/AWS1700/700) WCDMA B2/B4/B5 (1900/AWS1700/850)	EU Model: Sub-6: n1, n3, n5, n7, n8, n20, n28, n38, n40, n41, n75, n76, n77, n78, n79 LTE FDD: B1, B3, B5, B7, B8, B20, B28, B32 LTE TDD: B38, B40, B41, B42, B43 WCDMA: B1, B5, B8 US Model: Sub-6: n2, n5, n7, n12, n14, n25, n30, n48, n41, n70, n66, n71, n77, n78 LTE FDD: B2, B4, B5, B7, B12, B13, B29, B30, B66, B71 LTE TDD: B41, B46(LAA), B48		
	5G NR/4G LTE	2.4Gbps (DL)/500Mbps (UL) for NR 1Gbps (DL)/200Mbps (UL) for LTE			2.47Gbps (DL)/900Mbps (UL) for NR 1.2Gbps (DL)/200Mbps (UL) for LTE	LTE: 20MHz bandwidth: 100Mbps (DL), 50Mbps (UL)			2.47Gbps (DL)/ 900Mbps (UL) for NR
Power	Inputs	9~54V DC	9~54V DC	9~54V DC	9~36V DC	5-32V DC	5-36V DC	5-36V DC	802.3at, 12V DC
	Connector	6 pin terminal block	6 pin terminal block	6 pin terminal block	6 pin 3.5mm terminal block	Standard 4-pin vehicle power jack	6 pin 3.5mm terminal block		-
	Consumption	6 watts /10 watts	8 watts/12 watts	3.9 watts/11.6 watts	14.4 watts	3 watts	7 watts	7 watts	18 watts
Mechanical	Dimensions (W x D x H)	50 x 135 x 135 mm	50 x 135 x 135 mm	50 x 135 x 135 mm	106 x 76 x 23.5 mm	168 x 104 x 25 mm	115.7 x 133 x 45	115.7 x 133 x 45	150 x 100 x 240mm
	Enclosure	IP30 metal	IP30 metal	IP30 metal	IP30	IP30 metal case	IP30 metal case	IP30 metal case	IP68
	Mounting	DIN-rail and wall-mountab	DIN-rail and wall-mountab	DIN-rail and wall-mountab	DIN-rail and wall-mountable	Mounting brackets for vehicles	DIN rail	DIN rail	wall-mountable
Environment	Operating Temperature	-40~75 degrees C	-40~75 degrees C	-40~75 degrees C	-40~+75°C	-25~65 degrees C	-35~75degrees	-35~75degrees	-20~+60°C
	Operating Humidity	5 ~ 90% (non-condensing)	5 ~ 90% (non-condensing)	5 ~ 90% (non-condensing)	5% ~ 95% (No-condensing)	95% (non-condensing)			5% ~ 95% (No-condensing)
Regulatory	Emissions	FCC Class A, CE class A	FCC Class A, CE class A	FCC Class A, CE class A	CE	FCC Part 15 Class A, CE			-
Management	Interface	Web browser, TLS, PLANET Smart Discoveryutility, NMS Controller, CloudViewerPro supported			Web, Telnet, SSH	Console, Web, telnet			Web, Telnet, SSH
	Watchdog	-	-	-	work with CMS for remote management and advertising				
	Log	Syslog Log	Syslog Log	Syslog Log	Syslog Log	Syslog Log	Syslog Log	Syslog Log	Syslog Log



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